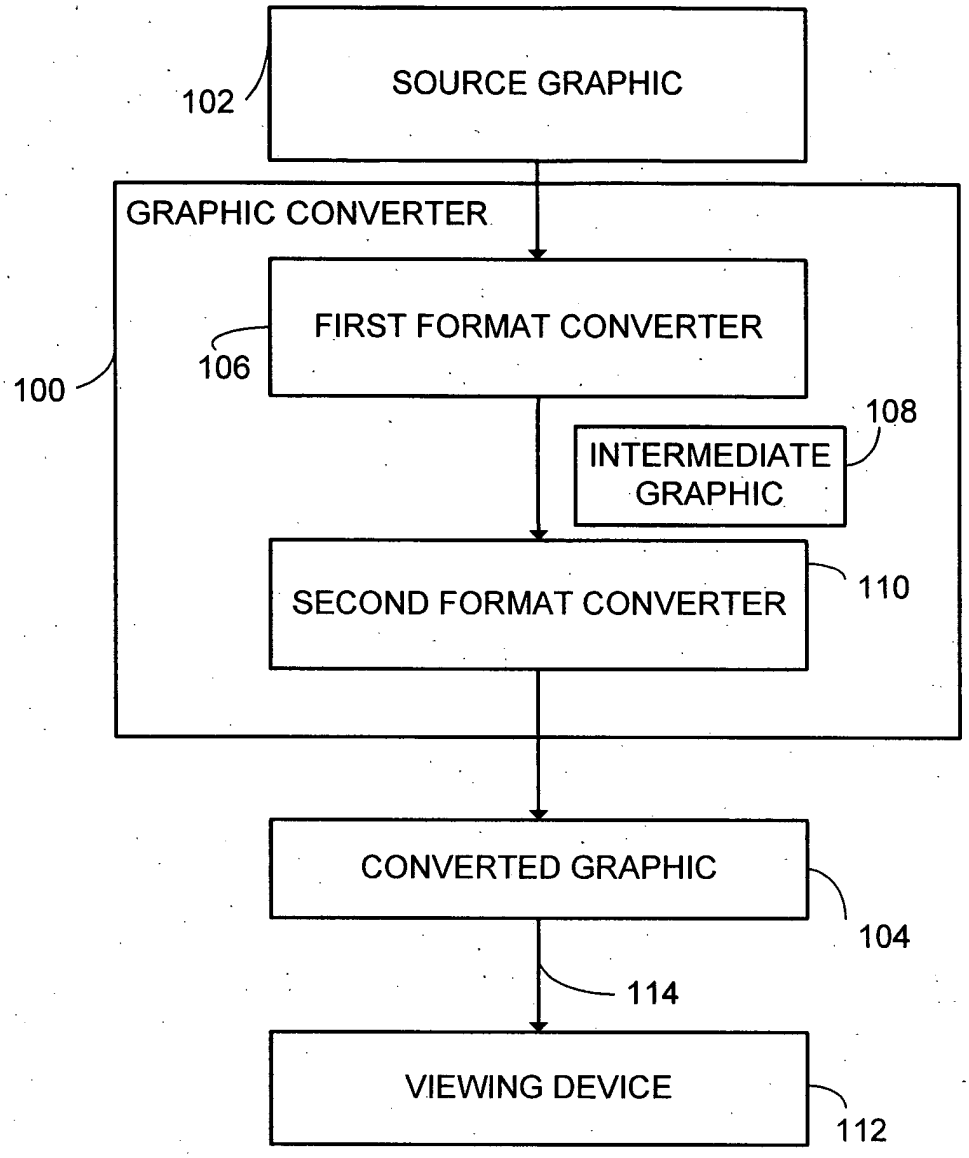
SOURCE GRAPHIC
102
GRAPHIC CONVERTER
FIRST FORMAT CONVERTER
106
100
108
INTERMEDIATE GRAPHIC
SECOND FORMAT CONVERTER
110
CONVERTED GRAPHIC
104
114
VIEWING DEVICE
112

FIG. 1

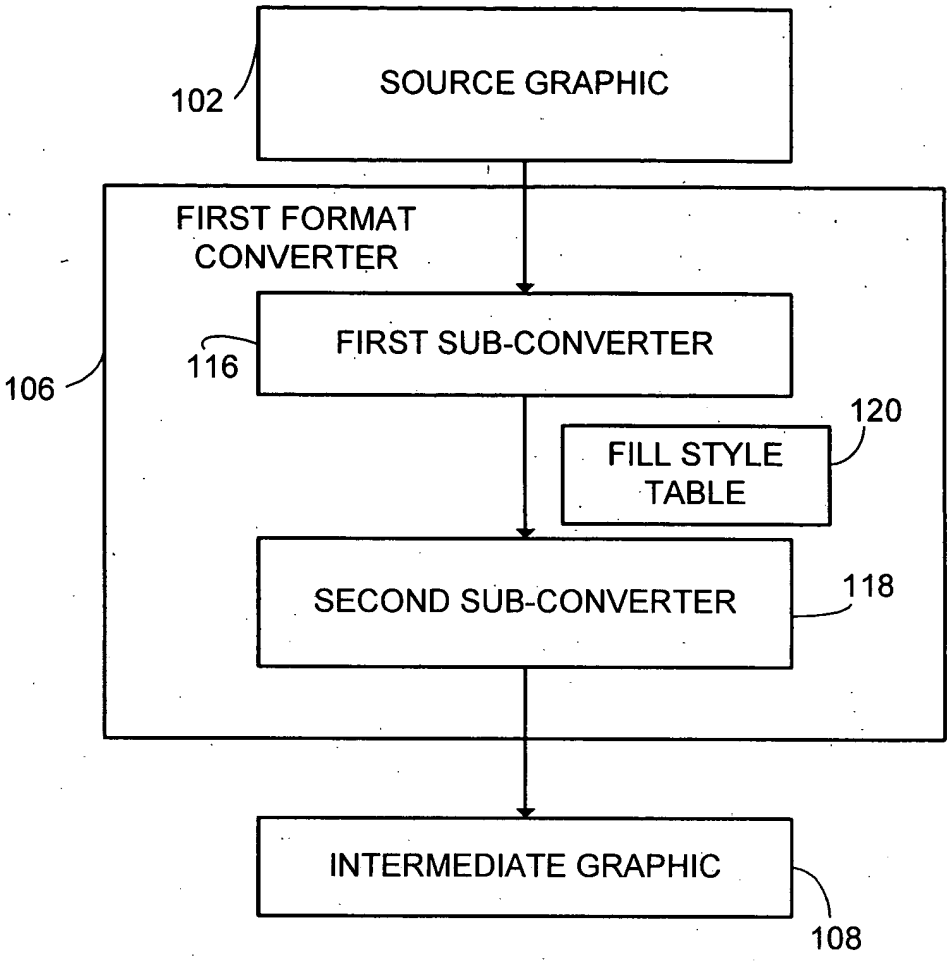
SOURCE GRAPHIC
102
FIRST FORMAT CONVERTER
106
FIRST SUB-CONVERTER
116
FILL STYLE TABLE
120
SECOND SUB-CONVERTER
118
INTERMEDIATE GRAPHIC
108

FIG. 2

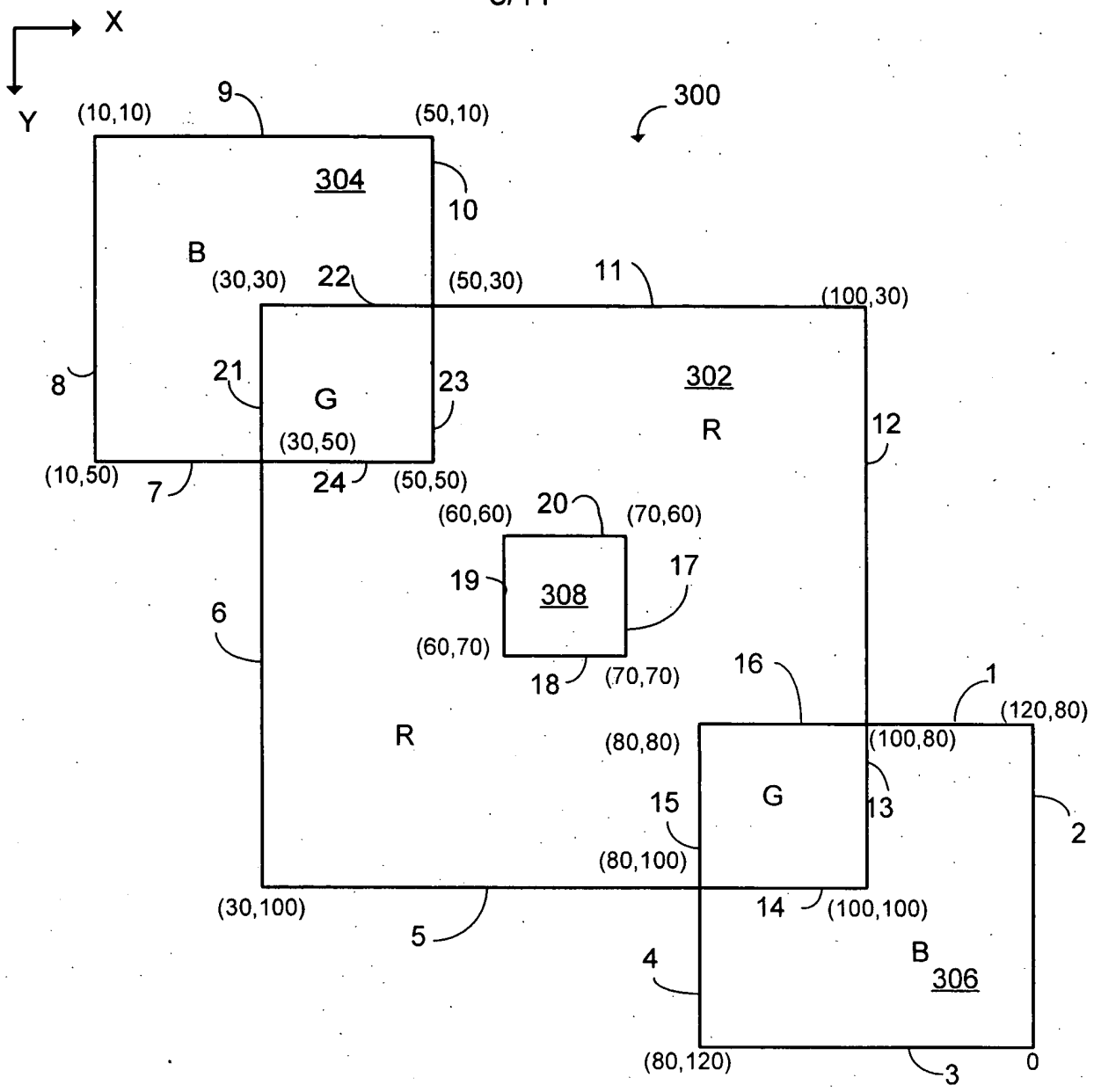
X
Y
300
9
(10,10)
(50,10)
304
10
B
(30,30)
22
(50,30)
11
(100,30)
8
21
G
23
302
(30,50)
R
12
(10,50)
7
24
(50,50)
(60,60)
20
(70,60)
19
308
17
6
(60,70)
18
(70,70)
16
1
(120,80)
R
(80,80)
(100,80)
15
G
13
2
(80,100)
(30,100)
14
(100,100)
5
4
B
306
(80,120)
3
0

FIG. 3

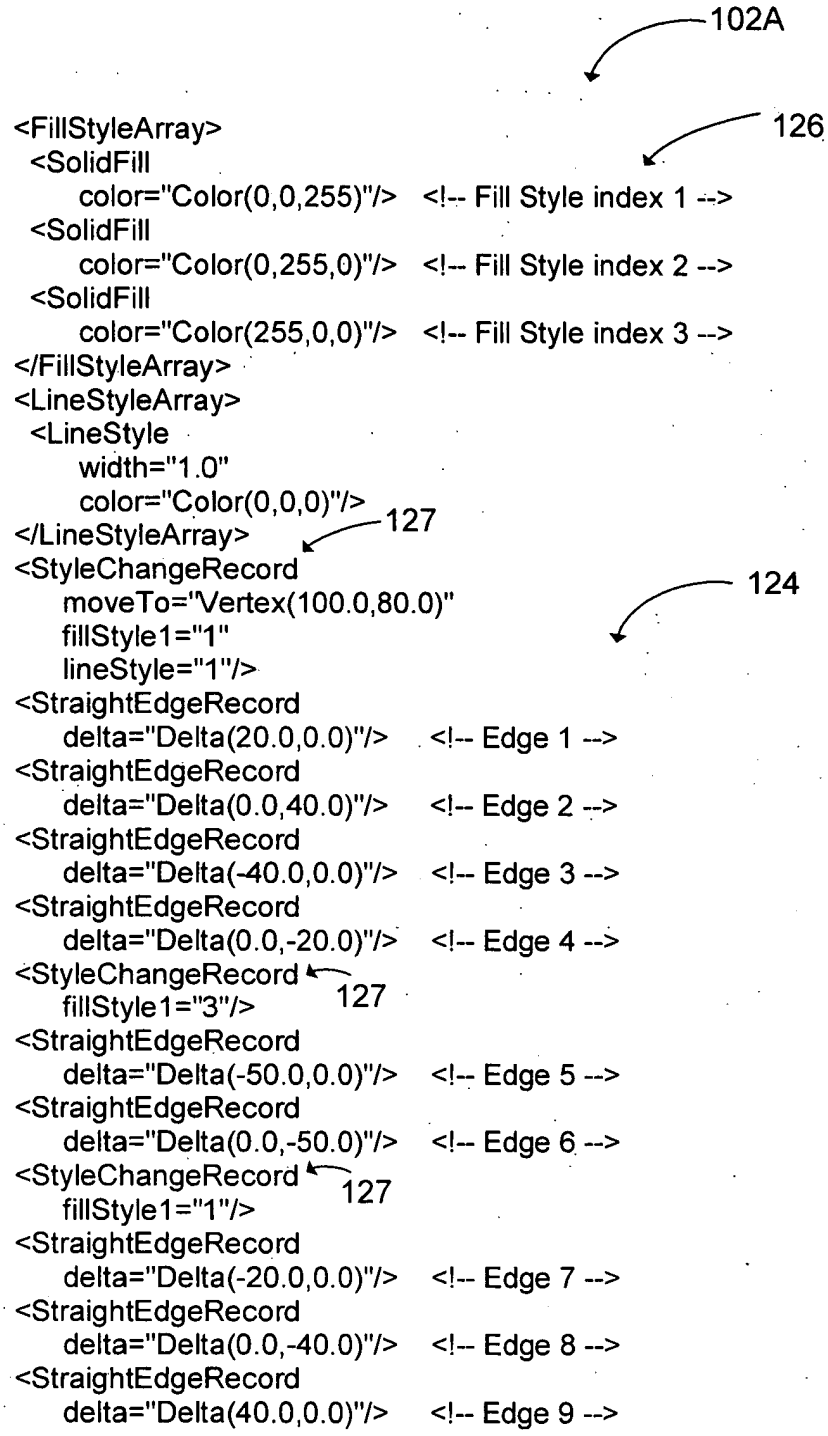
102A
126
<FillStyleArray>
<SolidFill
color="Color(0,0,255)"/> <!-- Fill Style index 1 -->
<SolidFill
color="Color(0,255,0)"/> <!-- Fill Style index 2 -->
<SolidFill
color="Color(255,0,0)"/> <!-- Fill Style index 3 -->
</FillStyleArray>
<LineStyleArray>
<LineStyle
width="1.0"
color="Color(0,0,0)"/>
</LineStyleArray>
127
<StyleChangeRecord
moveTo="Vertex(100.0,80.0)"
fillStyle1="1"
lineStyle="1"/>
124
<StraightEdgeRecord
delta="Delta(20.0,0.0)"/> <!-- Edge 1 -->
<StraightEdgeRecord
delta="Delta(0.0,40.0)"/> <!-- Edge 2 -->
<StraightEdgeRecord
delta="Delta(-40.0,0.0)"/> <!-- Edge 3 -->
<StraightEdgeRecord
delta="Delta(0.0,-20.0)"/> <!-- Edge 4 -->
<StyleChangeRecord
fillStyle1="3"/>
127
<StraightEdgeRecord
delta="Delta(-50.0,0.0)"/> <!-- Edge 5 -->
<StraightEdgeRecord
delta="Delta(0.0,-50.0)"/> <!-- Edge 6 -->
<StyleChangeRecord
fillStyle1="1"/>
127
<StraightEdgeRecord
delta="Delta(-20.0,0.0)"/> <!-- Edge 7 -->
<StraightEdgeRecord
delta="Delta(0.0,-40.0)"/> <!-- Edge 8 -->
<StraightEdgeRecord
delta="Delta(40.0,0.0)"/> <!-- Edge 9 -->

FIG. 4

```
    <StraightEdgeRecord
    delta="Delta(0.0,20.0)"/>    <!-- Edge 10 -->
<StyleChangeRecord                                    127
    fillStyle1="3"/>
<StraightEdgeRecord
    delta="Delta(50.0,0.0)"/>    <!-- Edge 11 -->
<StraightEdgeRecord
    delta="Delta(0.0,50.0)"/>    <!-- Edge 12 -->
<StyleChangeRecord                                    127
    fillStyle0="1"
    fillStyle1="2"/>
<StraightEdgeRecord
    delta="Delta(0.0,20.0)"/>    <!-- Edge 13 -->
<StraightEdgeRecord
    delta="Delta(-20.0,0.0)"/>   <!-- Edge 14 -->
<StyleChangeRecord                                    127
    fillStyle0="3"/>
<StraightEdgeRecord
    delta="Delta(0.0,-20.0)"/>   <!-- Edge 15 -->
<StraightEdgeRecord
    delta="Delta(20.0,0.0)"/>    <!-- Edge 16 -->
<StyleChangeRecord
    moveTo="Vertex(70.0,60.0)"                        127
    fillStyle1="0"/>
<StraightEdgeRecord
    delta="Delta(0.0,10.0)"/>    <!-- Edge 17 -->
<StraightEdgeRecord
    delta="Delta(-10.0,0.0)"/>   <!-- Edge 18 -->
<StraightEdgeRecord
    delta="Delta(0.0,-10.0)"/>   <!-- Edge 19 -->
<StraightEdgeRecord
    delta="Delta(10.0,0.0)"/>    <!-- Edge 20 -->
<StyleChangeRecord
    moveTo="Vertex(30.0,50.0)"                        127
    fillStyle0="1"
    fillStyle1="2"/>
<StraightEdgeRecord
    delta="Delta(0.0,-20.0)"/>   <!-- Edge 21 -->
<StraightEdgeRecord
    delta="Delta(20.0,0.0)"/>    <!-- Edge 22 -->
<StyleChangeRecord                                    127
    fillStyle0="3"/>
<StraightEdgeRecord
    delta="Delta(0.0,20.0)"/>    <!-- Edge 23 -->
<StraightEdgeRecord
    delta="Delta(-20.0,0.0)"/>   <!-- Edge 24 -->
```

124

FIG. 4
(continued)

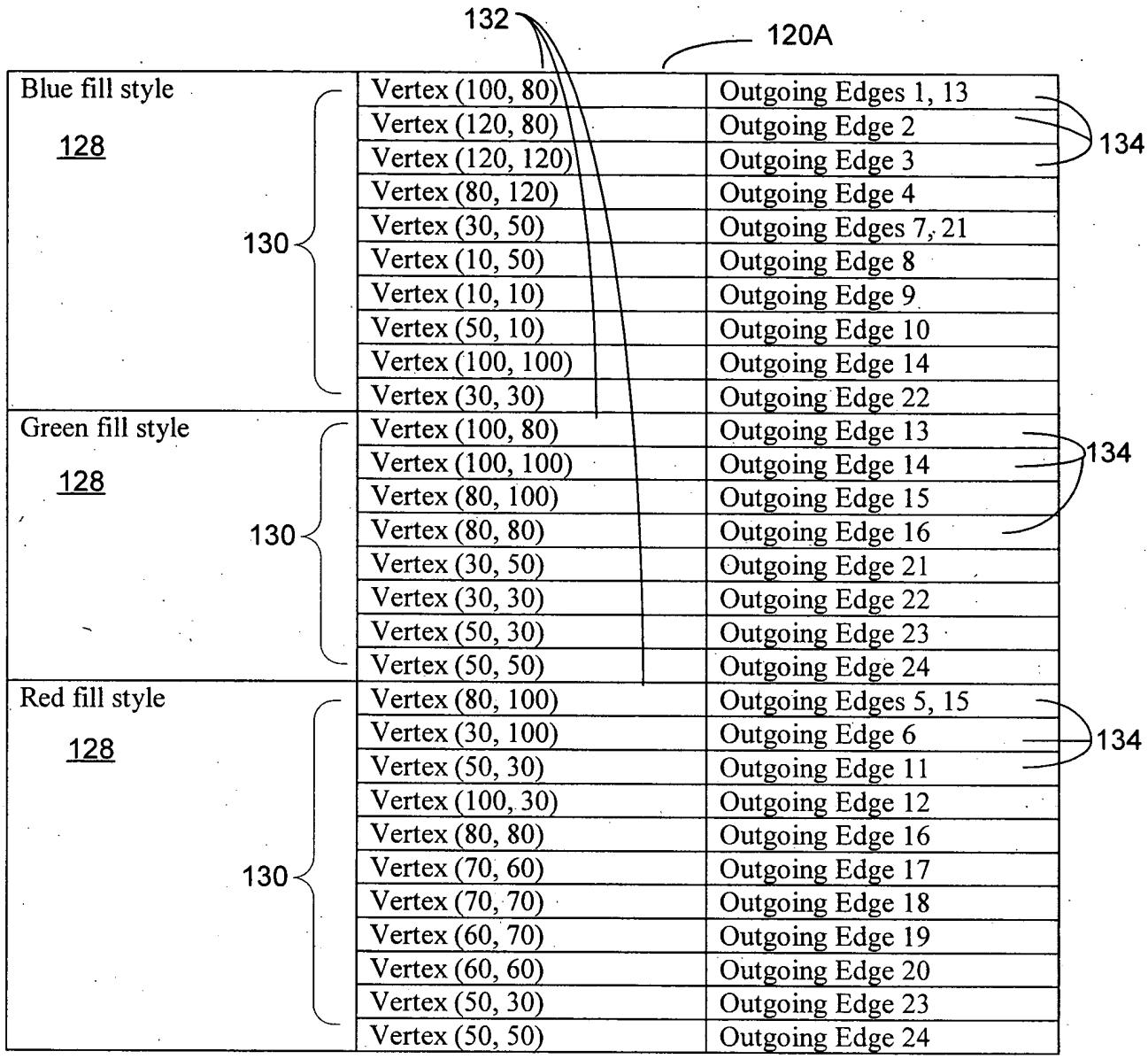
132
120A
Blue fill style
128
130
Vertex (100, 80)
Vertex (120, 80)
Vertex (120, 120)
Vertex (80, 120)
Vertex (30, 50)
Vertex (10, 50)
Vertex (10, 10)
Vertex (50, 10)
Vertex (100, 100)
Vertex (30, 30)
Outgoing Edges 1, 13
Outgoing Edge 2
Outgoing Edge 3
Outgoing Edge 4
Outgoing Edges 7, 21
Outgoing Edge 8
Outgoing Edge 9
Outgoing Edge 10
Outgoing Edge 14
Outgoing Edge 22
134
Green fill style
128
130
Vertex (100, 80)
Vertex (100, 100)
Vertex (80, 100)
Vertex (80, 80)
Vertex (30, 50)
Vertex (30, 30)
Vertex (50, 30)
Vertex (50, 50)
Outgoing Edge 13
Outgoing Edge 14
Outgoing Edge 15
Outgoing Edge 16
Outgoing Edge 21
Outgoing Edge 22
Outgoing Edge 23
Outgoing Edge 24
134
Red fill style
128
130
Vertex (80, 100)
Vertex (30, 100)
Vertex (50, 30)
Vertex (100, 30)
Vertex (80, 80)
Vertex (70, 60)
Vertex (70, 70)
Vertex (60, 70)
Vertex (60, 60)
Vertex (50, 30)
Vertex (50, 50)
Outgoing Edges 5, 15
Outgoing Edge 6
Outgoing Edge 11
Outgoing Edge 12
Outgoing Edge 16
Outgoing Edge 17
Outgoing Edge 18
Outgoing Edge 19
Outgoing Edge 20
Outgoing Edge 23
Outgoing Edge 24
134

FIG. 5

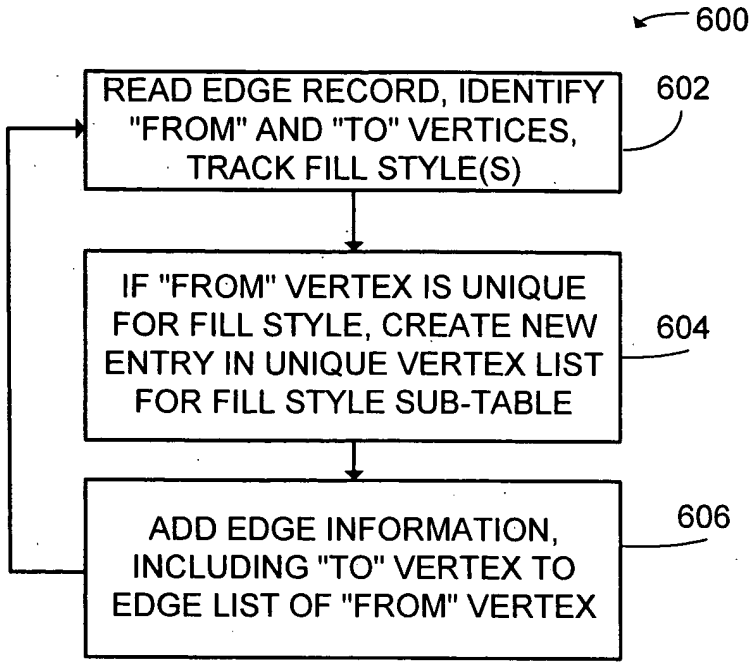
600
READ EDGE RECORD, IDENTIFY "FROM" AND "TO" VERTICES, TRACK FILL STYLE(S)
602
IF "FROM" VERTEX IS UNIQUE FOR FILL STYLE, CREATE NEW ENTRY IN UNIQUE VERTEX LIST FOR FILL STYLE SUB-TABLE
604
ADD EDGE INFORMATION, INCLUDING "TO" VERTEX TO EDGE LIST OF "FROM" VERTEX
606

FIG. 6

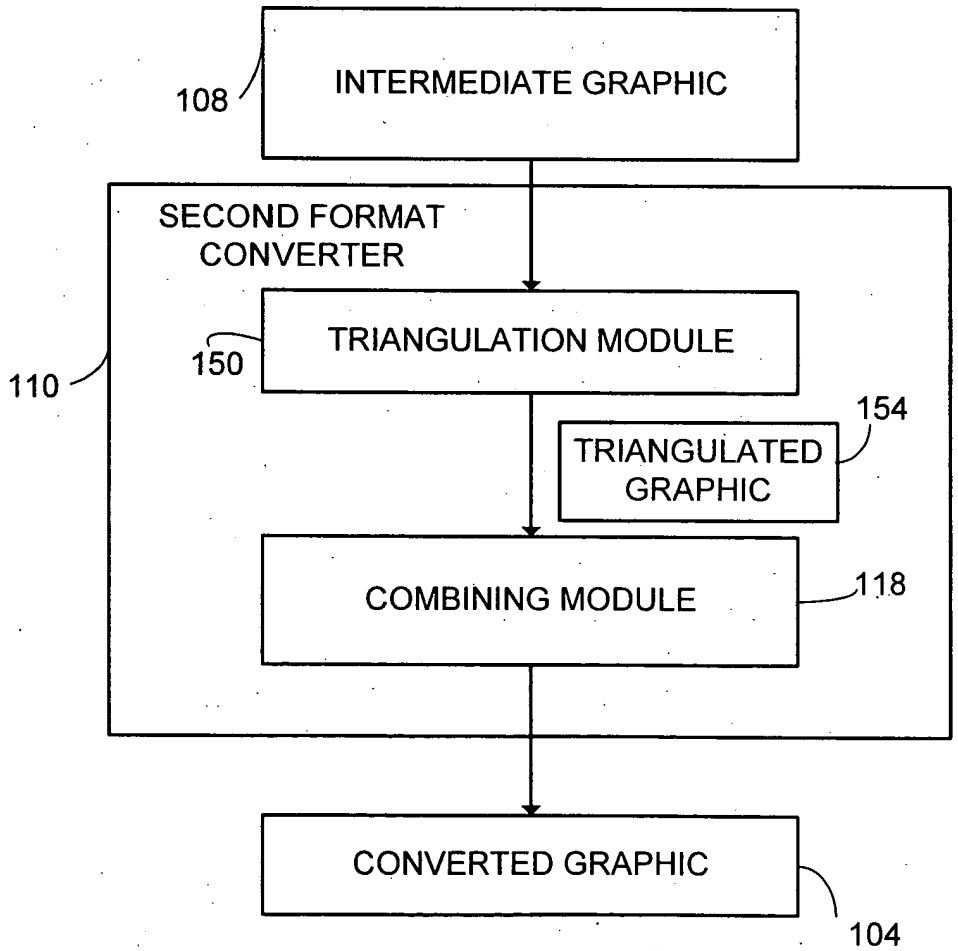
108
INTERMEDIATE GRAPHIC
SECOND FORMAT CONVERTER
110
150
TRIANGULATION MODULE
154
TRIANGULATED GRAPHIC
COMBINING MODULE
118
CONVERTED GRAPHIC
104

FIG. 9

108A

```
<?xml version="1.0"?>
<!DOCTYPE svg SYSTEM "svg.dtd">
<svg
    width="130.0"
    height="130.0">

 <!-- Background rectangle -->
 <rect
     x="0.0"
     y="0.0"
     width="130.0"
     height="130.0"
     fill="rgb(255,255,255)"/>

 <g
     transform="translate(0.0 0.0) ">
  <path                                                                    136(1)
      fill="rgb(0,0,255)"
      stroke="none"
      d="M120.0 80.0L100.0 80.0L100.0 100.0L80.0 100.0L80.0 120.0L120.0 120.0L120.0 80.0M10.0
50.0L30.0 50.0L30.0 30.0L50.0 30.0L50.0 10.0L10.0 10.0L10.0 50.0"/>
  <path                                                                    136(2)
      fill="rgb(0,255,0)"
      stroke="none"
      d="M100.0 100.0L100.0 80.0L80.0 80.0L80.0 100.0L100.0 100.0M30.0 30.0L30.0 50.0L50.0
50.0L50.0 30.0L30.0 30.0"/>
  <path                                                                    136(3)
      fill="rgb(255,0,0)"
      stroke="none"
      d="M30.0 100.0L80.0 100.0L80.0 80.0L100.0 80.0L100.0 30.0L50.0 30.0L50.0 50.0L30.0
50.0L30.0 100.0M70.0 60.0L70.0 70.0L60.0 70.0L60.0 60.0L70.0 60.0"/>
  <path                                                                    138
      fill="none"
      stroke="rgb(0,0,0)"
      stroke-width="1.0"
      stroke-linecap="round"
      stroke-linejoin="round"
      d="M100.0 80.0L120.0 80.0L120.0 120.0L80.0 120.0L80.0 100.0L30.0 100.0L30.0 50.0L10.0
50.0L10.0 10.0L50.0 10.0L50.0 30.0L100.0 30.0L100.0 80.0L100.0 100.0L80.0 100.0L80.0 80.0L100.0
80.0M30.0 50.0L30.0 30.0L50.0 30.0L50.0 50.0L30.0 50.0M70.0 60.0L70.0 70.0L60.0 70.0L60.0
60.0L70.0 60.0"/>
 </g>
</svg>
```

FIG. 7

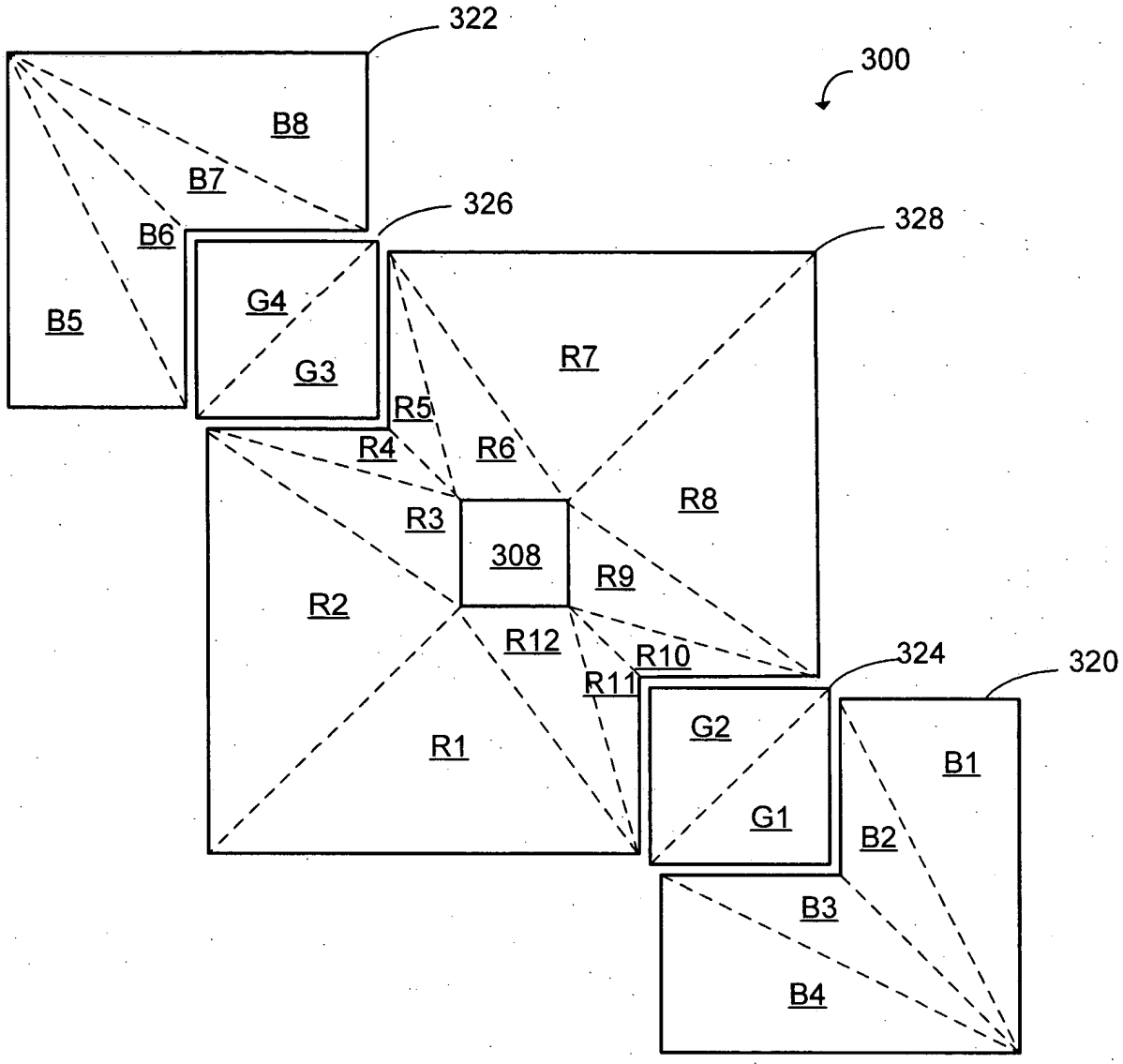
322
300
B8
B7
326
328
B6
G4
B5
G3
R7
R5
R4
R6
R8
R3
308
R9
R2
R12
R10
324
320
R11
G2
R1
B1
G1
B2
B3
B4

FIG. 8

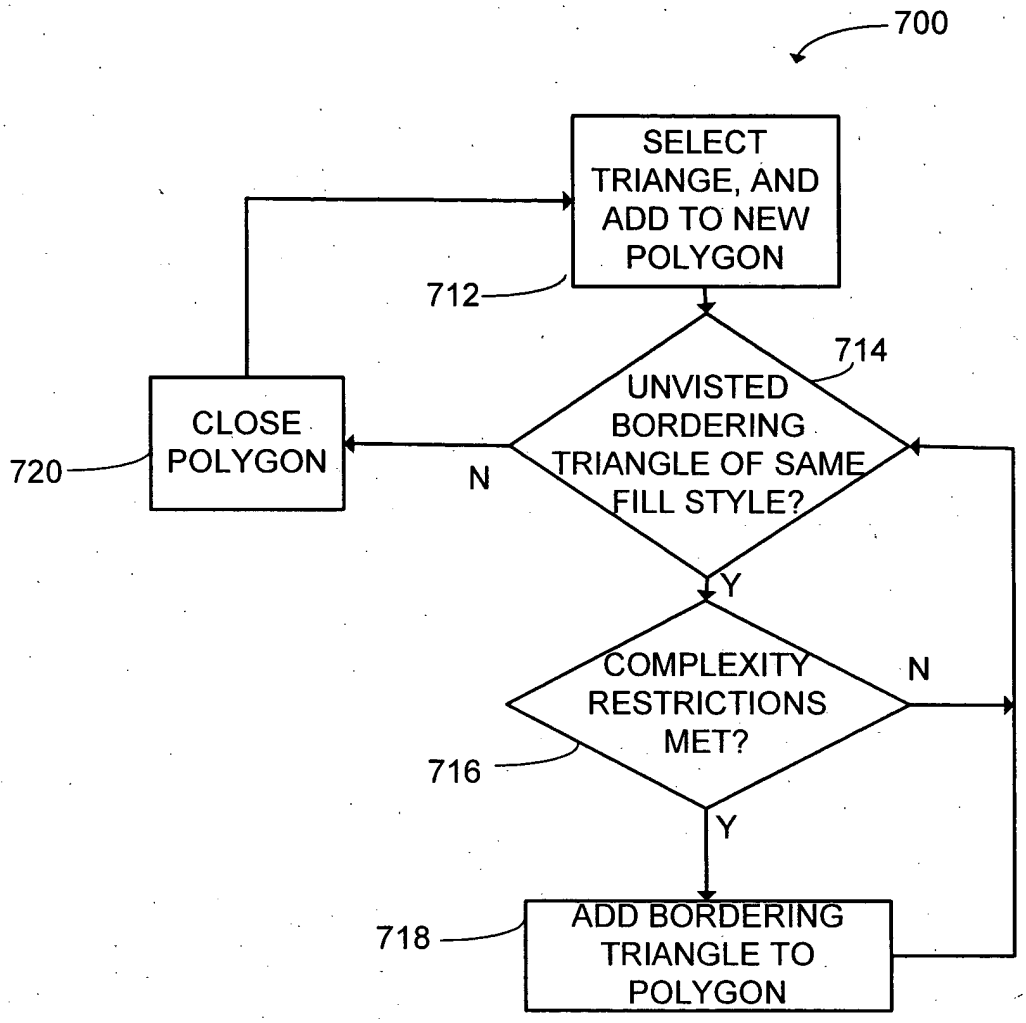
700
SELECT TRIANGE, AND ADD TO NEW POLYGON
712
714
UNVISTED BORDERING TRIANGLE OF SAME FILL STYLE?
CLOSE POLYGON
720
N
Y
COMPLEXITY RESTRICTIONS MET?
N
716
Y
718
ADD BORDERING TRIANGLE TO POLYGON

FIG. 10

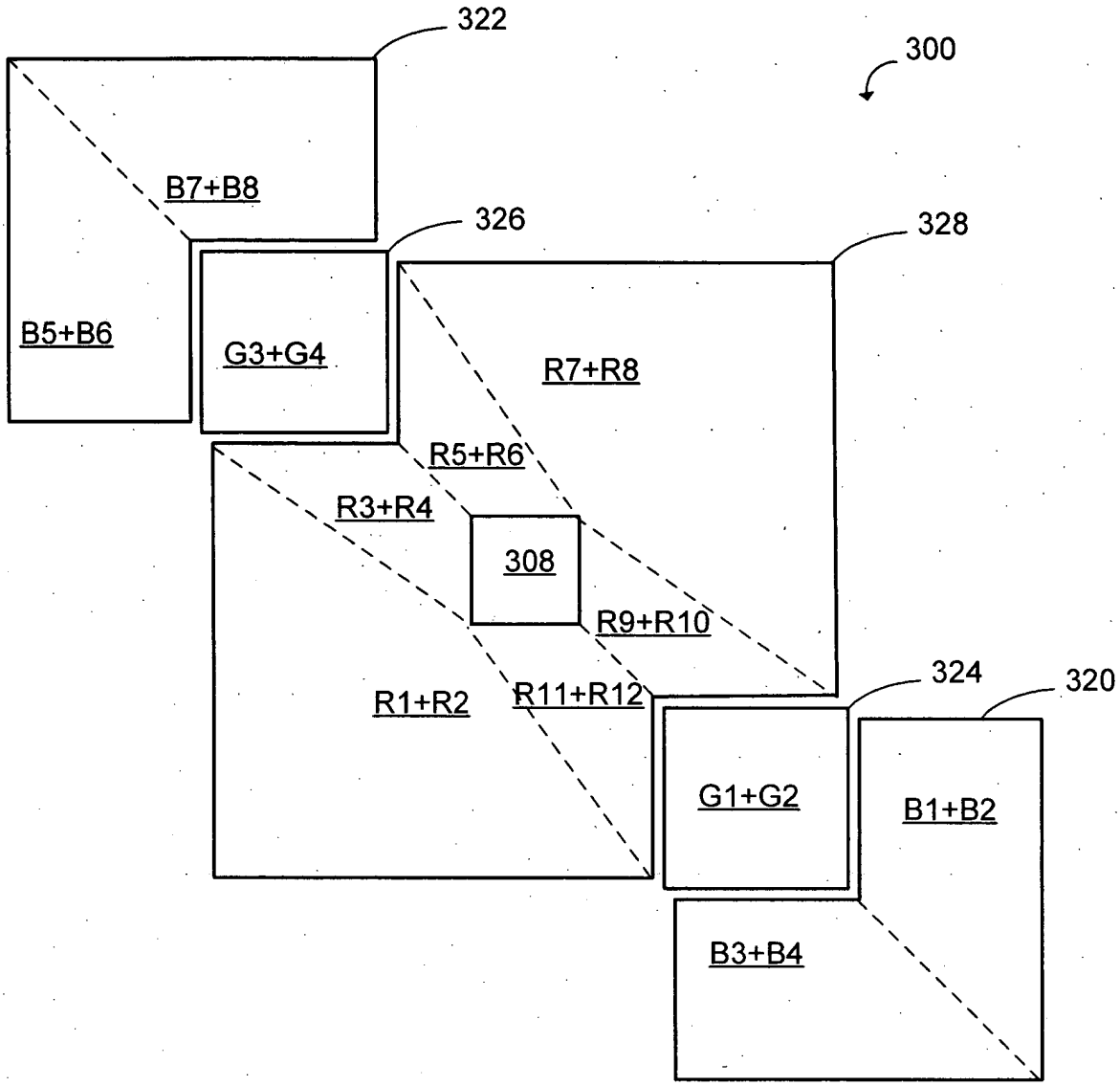
322
300
B7+B8
326
328
B5+B6
G3+G4
R7+R8
R5+R6
R3+R4
308
R9+R10
R1+R2
R11+R12
324
320
G1+G2
B1+B2
B3+B4

FIG. 11